

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,004,240 B1  
APPLICATION NO. : 10/602022  
DATED : February 28, 2006  
INVENTOR(S) : Edward J. Krolicek et al.

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

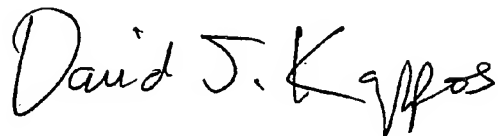
The title page showing an illustrative figure, should be deleted and substitute therefore the attached title page.

**On the title page:**

In ITEM (56) REFERENCES CITED,		Other Publications
PAGE 2,	1 <sup>st</sup> column,	In the 5 <sup>th</sup> entry, change "Bugby et al, Proceedings of teh" to --Bugby et al, Proceedings of the--
PAGE 2,	1 <sup>st</sup> column,	In the 6 <sup>th</sup> entry, change "Integration,"D." to --Integration," D.--
PAGE 2,	1 <sup>st</sup> column,	In the 6 <sup>th</sup> entry, change "International conference; 31st," to --International conference; 31st--
PAGE 2,	1 <sup>st</sup> column,	change "Pumped Loop,"Triem" to --Pumped Loop," Triem--
PAGE 2,	2 <sup>nd</sup> column,	In the 10 <sup>th</sup> entry, change ""Development of Advenced" to --"Development of Advanced"--
PAGE2,	2 <sup>nd</sup> column,	In the 3 <sup>rd</sup> full entry of the 2 <sup>nd</sup> column, change "Acondicionado Y Refreigeracion" to --Acondicionado Y Refrigeracion--
PAGE 2,	2 <sup>nd</sup> column,	In the 4 <sup>th</sup> full entry, change "Domestic Refrigerator,"Oguz, Emre" to --Domestic Refrigerator," Oguz, Emre--
PAGE 2,	2 <sup>nd</sup> column,	In the 6 <sup>th</sup> full entry, change "Macines for Domestic Refrigeration,"Berchowitz" to --Machines for Domestic Refrigeration," Berchowitz--
PAGE 2,	2 <sup>nd</sup> column,	In the 7 <sup>th</sup> full entry, change "Symposium by TTH Reserach" to --Symposium by TTH Research--
PAGE 2,	2 <sup>nd</sup> column,	In the 11 <sup>th</sup> full entry, change ""Multiple Evaporator Loop Heat Pipe,"James" to --"Multiple Evaporator Loop Heat Pipe," James--
PAGE 2,	2 <sup>nd</sup> column,	In the 14 <sup>th</sup> full entry, change ""Recent Advences in Capillary Pumped" to --"Recent Advances in Capillary Pumped--

Signed and Sealed this

Tenth Day of August, 2010



David J. Kappos  
*Director of the United States Patent and Trademark Office*

**On the title page:**

In ITEM (56) REFERENCES CITED,

PAGE 2, 2<sup>nd</sup> column,

PAGE 3, 1<sup>st</sup> column,

PAGE 3, 1<sup>st</sup> column,

PAGE 3, 1<sup>st</sup> column,

PAGE 3, 2<sup>nd</sup> column,

PAGE 3, 2<sup>nd</sup> column,

Other Publications (continued)

In the 15<sup>th</sup> full entry, change “Recent Advances in Stirling” to --“Recent Advances in Stirling--

In the 1<sup>st</sup> entry, change ““Testing of a Capillary Pumped”” to --“Testing of a Capillary Pumped”--

In the 3<sup>rd</sup> entry, change ““The Hybrid Capillary Pumped Loop,”J.” to --“The Hybrid Capillary Pumped Loop,” J.--

In the 3<sup>rd</sup> entry, change “submitted to SAE 18<sup>th</sup> Ingersociety” to --submitted to SAE 18<sup>th</sup> Intersociety--

In the 2<sup>nd</sup> entry, change "Refrigeration,"Kim," to --Refrigeration," Kim,"--

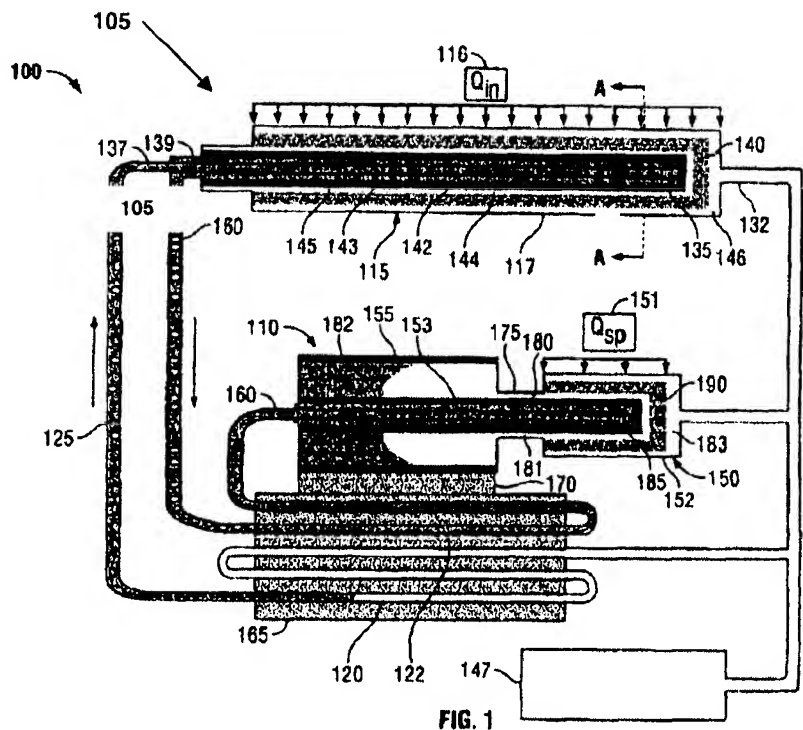
In the 2<sup>nd</sup> entry, change “Congerence 32” to  
--Conference 32--

**In the drawings:**

In FIG. 1,

insert --105-- and an associated lead line indicating an appropriate location of the heat transfer system

The sheet of drawings consisting of figure 1 should be deleted and substitute therefore the attached figure 1.



COLUMN 2, LINE 28,	change "surround" to --surrounding--
COLUMN 6, LINE 44,	change "1, 15" to --115--
COLUMN 7, LINE 48,	change "outlet port 139" to --outlet 139--
COLUMN 7, LINE 52,	change "outlet port 139" to --outlet 139--
COLUMN 7, LINE 53,	change "outlet port 139" to --outlet 139--
COLUMN 8, LINE 8,	change "temperature 410" to --time 410--
COLUMN 8, LINE 60,	after "liquid" and before "flows" insert --522--
COLUMN 8, LINE 61,	after "fluid" insert--522--
COLUMN 8, LINE 63,	after "fluid" insert --522--
COLUMN 8, LINE 65,	after "fluid" insert --522--
COLUMN 9, LINE 65,	change "radiator" to --heat sink--
COLUMN 10, LINE 58,	change "of a" to --over a--
COLUMN 11, LINE 7,	after "1020" and before "within" insert --(not shown)--
COLUMN 11, LINE 9,	after "1025" and before "within" insert --(not shown)--
COLUMN 11, LINE 20,	at the end of the line, change "sensor" to --component--
 CLAIM 18, COLUMN 12, LINE 52,	 change "surround" to --surrounding--

(12) **United States Patent**  
**Kroliczek et al.**

(10) **Patent No.:** **US 7,004,240 B1**  
(45) **Date of Patent:** **Feb. 28, 2006**

(54) **HEAT TRANSPORT SYSTEM**

(75) **Inventors:** **Edward J. Kroliczek**, Davidsonville,  
MD (US); **James Seokgeun Yun**, Silver  
Spring, MD (US)

(73) **Assignee:** **Swales & Associates, Inc.**, Beltsville,  
MD (US)

(\*) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 269 days.

(21) **Appl. No.:** **10/602,022**

(22) **Filed:** **Jun. 24, 2003**

**Related U.S. Application Data**

(60) **Provisional application No.** 60/391,006, filed on Jun.  
24, 2002.

(51) **Int. Cl.**  
**F28D 15/00** (2006.01)

(52) **U.S. Cl.** ..... **165/104.26; 165/41; 165/42;**  
**165/104.21; 165/104.33; 165/104.11; 165/104.19**

(58) **Field of Classification Search** ..... **165/41,**  
**165/42, 104.21, 104.26, 104.33, 104.11, 104.19;**  
**244/163, 158 R**

See application file for complete search history.

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namics and Lasers Conference, San Antonio, TX, Jun.  
27-29, 1988, 12 pages.

(Continued)

**Primary Examiner**—Henry Bennett

**Assistant Examiner**—Nihir Patel

(74) **Attorney, Agent, or Firm**—Fish & Richardson P.C.

(57) **ABSTRACT**

A system includes a heat transfer system and a priming  
system coupled to the heat transfer system. The heat transfer  
system includes a main evaporator having a core, a primary  
wick, and a secondary wick, and a condenser coupled to the  
main evaporator by a liquid line and a vapor line. A heat  
transfer system loop is defined by the main evaporator, the  
condenser, the liquid line, and the vapor line. The priming  
system is configured to convert fluid into a liquid capable of  
wetting the primary wick of the main evaporator. The  
priming system includes a priming evaporator coupled to the  
vapor line, and a reservoir in fluid communication with the  
priming evaporator and coupled to the secondary wick of the  
main evaporator by a secondary fluid line.

**44 Claims, 10 Drawing Sheets**

